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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,976	02/20/2004	Yangsung Joo	MIC-30 Cont.	4392
1473	7590	01/12/2005	EXAMINER	
FISH & NEAVE IP GROUP ROPES & GRAY LLP 1251 AVENUE OF THE AMERICAS FL C3 NEW YORK, NY 10020-1105			LUU, PHO M	
			ART UNIT	PAPER NUMBER
			2824	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/783,976

Applicant(s)

JOO, YANGSUNG

Examiner

Pho M Luu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 58-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 58-60, 65, 66, 68-71, 76, 77 and 79-82 is/are rejected.
- 7) ☒ Claim(s) 61-64, 67, 72-75 and 78 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input checked="" type="checkbox"/> Other: <u>Search History</u> .                   |

### **DETAILED ACTION**

1. Acknowledgment is made of applicant's Preliminary Amendment filed 05 August 2004. The changes and remarks disclosed therein were considered.
2. Claims 1-57 was canceled.
3. Claims 58-82 are pending in the application.

### ***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it uses the phrase "**are presented**" in line 3 and "**of the invention advantageously**" in lines 11-12, which is implied. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 58-60, 65-66, 68-71, 76-77 and 79-82 rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi. (US. 5,982,689).

Regarding claim 58, 65-66, 68-70, 76-77 and 79-82 Takahashi in Figures 11-12 discloses an electrical circuit for driving an amplifier operative (sense amplifier circuit of an SRAM, see column 1, lines 15-16) to amplify a differential voltage between a pair of signal line (a pairs of signal lines B and BB in Figure 11-12) to a full digital logic separation comprising:

a switch (M101, M102, M104, M105) coupled between a voltage source (M101, M102 with differential amplifier connection with signal B and Bb as gate input and the source in common are located, Figure 11) and an input terminal of the amplifier (see column 1, lines 32-35), the switch operative (M104, M105 in an on state are provided the drain of M101, M102 and high power supply) to raise the input terminal to a voltage

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(VCC) greater than ground potential (GND) to development of the differential voltage between the pair of signal line (see column 1, lines 20-52).

With respected to claim 59, Takahashi in Figure 11 disclosed the electrical circuit is included in a memory circuit (SRAM, see column 1, line 15).

With respected to claims 60 and 71 Takahashi in Figure 11 disclosed the electrical circuit is included in a DRAM (inherence SRAM is type of DRAM circuit, see column 1, line 15).

### ***Allowable Subject Matter***

8. Claims 61-64, 67 and 72-75 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 61 and 72, the prior art of record do not disclose or suggest a second input terminal coupled to one of the pair of signal line and a third input terminal coupled to the other of the pair of signal line.

Regarding claims 67 and 78, the prior art of record do not disclose or suggest the voltage greater than ground potential is about one haft of the fully supply voltage.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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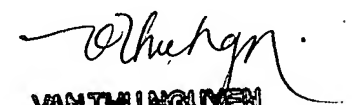
Baker (US. 6,597,600) disclosed a memory element voltage supply including a differential amplifier with a compensation circuit and a transistor gate connected to the output of the differential amplifier.

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Pho M. Luu whose telephone number is 571.272.1876. The examiner can normally be reached on M-F 8:00AM – 5:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Richard Elms, can be reached on 571.272.1869. The official fax number for the organization where this application or proceeding is assigned is 703.872.9306 for all official communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PML  
08 January 2005

  
**VANTHU NGUYEN**  
**PRIMARY EXAMINER**